

REMARKS

The Application has been carefully reviewed in light of the Office Action dated August 11, 2004 (Paper No. 7). Claims 1, 4 to 10, 13 to 17 and 20 to 23 are in the application, of which Claims 1, 6, 9, 10, 15 to 17, 22 and 23 are independent. Claims 2 to 3, 11 to 12 and 18 to 19 are being canceled without prejudice or disclaimer of the subject matter. Claims 1, 4 to 6, 9, 10, 13 to 17 and 20 to 23 are being amended. Reconsideration and further examination are respectfully requested.

The Office Action lodges an objection to the Abstract, and in particular the reference numbers contained therein. In response, the Abstract is being amended to remove the reference numbers. In addition, the Office Action raises objections to the claims for the reasons set forth in the Office Action at page 2. The amendments made herein are seen to obviate these objections. With respect to the objection to the use of “and” with the phrase “at least one of”, Applicant respectfully points out that “and” is proper given that the phrase “at least one of” can be interpreted to mean one or more than one, and not as is suggested in the Office Action “only ‘one of’”. Accordingly, withdrawal of these objections is respectfully requested.

By the Office Action, Claims 1 to 3, 5, 10 to 12, 14, 17 to 19 and 21 are rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 5,408,469 (Opher) and U.S. Patent No. 5,890,162 (Huckins), Claims 4, 6 to 9, 13, 15, 16, 20, 22 and 23 are rejected under 35 U.S.C. § 103(a) over Opher, Huckins and U.S. Patent No. 6,476,833 (Moshfeghi). The rejections are traversed.

The present invention generally concerns use of a “drill down” in information retrieval, to achieve a desired level of detail or resolution. More particularly,

according to one aspect of the invention, an address is formed for a audio/video (AV) fragment, which includes a URI network address and a fragment identifier. The fragment identifier is determined using an addressing scheme, which includes temporal and spatial fragment addressing. In another aspect of the invention, an AV resource fragment is located to an arbitrary level of resolution using an address which includes a URI network address and fragment identifier, wherein the fragment identifier is determined using an addressing scheme, which includes temporal and spatial fragment addressing.

By virtue of this arrangement, fragments of AV resources can be addressed and retrieved with a finer or more detailed level/resolution based on a temporal and spatial scheme.

Turning to the specific language of the claims, Claim 1 defines a method for forming an address for locating an electronically accessible Audio/Video (AV) fragment of an AV resource, to an arbitrary level of resolution. The AV resource is a member of a class of AV resources, wherein a logical model is associated with members of the class of AV resources. According to the method, a URI network address is determined for the AV resource. The logical model is applied to the AV resource to form a hierarchical representation of the AV resource including a representation of the AV fragment. A fragment identifier is determined for the fragment dependent upon the representation of the AV fragment by applying an addressing scheme to the fragment representation. The scheme includes at least one of a time axis, a time function, a region axis, and a region function, for addressing temporal and spatial fragments of the AV resource. The URI network address and the fragment identifier are combined to form a URI reference, being an address for the AV fragment.

The applied art, Opher and Huckins, is not seen to disclose the present invention, particularly as regards an address for an AV fragment which is a combination of a fragment identifier and a URI network address to form a URI reference, the fragment identifier is determined by applying an addressing scheme to a representation of the fragment, the addressing scheme including at least one of a time axis, a time function, a region axis, and a region function, for addressing temporal and spatial fragments of the AV resource.

Opher is seen to describe using an ATM switch for routing in a data communication network, such that a front end generates ATM cells, or packets, which have destination port identification information. (See Opher, Abstract) Information is communicated via an ATM switch in fixed-sized cells, and virtual channel and port identifiers in the header field of a cell are used to route a cell from an input port to an output port of the ATM switch. (See Opher, col. 2, lines 11 to 40)

The cited portions of Opher are seen to describe segmenting information to accommodate the fixed-size of an ATM cell. This is seen to be described, commencing at col. 1, line 45 of Opher, information is segmented into fixed-size cells, or packets, for transmission via the ATM network, using a segmentation technique such as AAL-5. This process is also described in an excerpt of the reference entitled "ATM: Theory and Application" by McDysan, D.E., which is submitted herewith in an Information Disclosure Statement.

Segmentation of information into a number of bytes to conform to a fixed-size payload, such as that of an ATM cell, is not seen to be the same as forming an address for an AV fragment which is a combination of a fragment identifier and a URI network

address to form a URI reference, the fragment identifier is determined by applying an addressing scheme to a representation of the fragment, the addressing scheme including at least one of a time axis, a time function, a region axis, and a region function, for addressing temporal and spatial fragments of the AV resource.

In addition, it is conceded in the Office Action, that Opher does not involve audio/video fragments of an audio/video resource. The Office Action states that Huckins, in particular the Abstract of Huckins, discloses a system to transmit AV data across a network. The cited portion of Huckins is seen to describe a server computer transmitting semantics to a client computer. At col. 3, lines 2 to 3, Huckins is seen to define a semantic as instructions to a computer to perform a specific sequence of actions. According to the Abstract of Huckins, the client computer identifies a locally-stored multimedia object that corresponds to the received semantic data, and then the client computer processes the object in accordance with the received semantics to create multimedia output at the client.

However, Huckins, either alone or in combination with Opher, is not seen to disclose an address for an AV fragment which is a combination of a fragment identifier and a URI network address to form a URI reference, the fragment identifier is determined by applying an addressing scheme to a representation of the fragment, the addressing scheme including at least one of a time axis, a time function, a region axis, and a region function, for addressing temporal and spatial fragments of the AV resource.

The remaining art, namely Moshfeghi, has been reviewed and is not seen to remedy the deficiencies noted with respect to Opher and Huckins. The Office Action is seen to rely on Moshefeghi simply for its reference to XML, Xlink and Xpointer. However, nothing in Moshfeghi is seen to disclose the above-identified combination of

features of the present invention.

Therefore, for at least the foregoing reasons, Claim 1 is believed to be in condition for allowance. Further, Applicants submit that Claims 10 and 17 are believed to be in condition for allowance for at least the same reasons.

Turning to Claim 6, a method is defined for locating an electronically accessible Audio/Video (AV) fragment of an AV resource, to an arbitrary level of resolution. The AV resource is a member of a class of AV resources, wherein a logical model is associated with members of the class of AV resources. According to the method, a URI network address portion of a URI reference is used to locate the AV resource. A type of the AV resource and the logical model are identified dependent upon one of the fragment identifier, the URI, and the fragment identifier or the URI. An XPath based addressing scheme is applied to the fragment identifier, the scheme including at least one of a time axis, a time function, a region axis, and a region function, for addressing temporal and spatial fragments of the AV resource, thereby locating the AV fragment.

Based on the above discussion, the applied art is not seen to show the present invention, particularly as regards locating an AV fragment of an AV resource, to an arbitrary level of resolution, by applying an Xpath-based addressing scheme to a fragment identifier, the addressing scheme including at least one of a time axis, a time function, a region axis, and a region function, for addressing temporal and spatial fragments of the AV resource.

Therefore, for at least the foregoing reasons, Claim 6 is believed to be in condition for allowance. Further, Applicants submit that Claims 9, 15, 16, 22 and 23 are believed to be in condition for allowance for at least the same reasons.

The remaining claims are each dependent from the independent claims discussed above and are therefore believed patentable for the same reasons. Because each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

In view of the foregoing, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office by telephone at (714) 540-8700. All correspondence should be directed to our address given below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Carole A. Quinn", is written over a horizontal line.

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